Claims

1. A compound of formula I

wherein

 R^1 is (C_1-C_3) -alkyl, halogen, halogen- (C_1-C_6) -alkyl, cyano, (C_1-C_6) -alkoxy or halogen- (C_1-C_6) -alkoxy;

R²¹, R²², R²³ and R²⁴ are each independently selected from the group consisting of hydrogen and fluoro;

 R^3 is hydrogen or (C_1-C_3) -alkyl;

A is selected from

 R^4 is hydrogen or (C_1-C_3) -alkyl;

R⁵, R⁶ and R⁷ are each independently hydrogen or (C₁-C₆)-alkyl; and

n is 1, 2 or 3;

wherein when n is 2 or 3, each R¹ is the same or different; or a pharmaceutically acceptable salt thereof.

- 2. A compound of according to claim 1, wherein n is 1.
- 3. A compound according to claim 1, wherein R^1 is halogen or halogen- (C_1-C_6) -alkyl.
- 4. A compound according to claim 3, wherein R¹ is fluoro or trifluoromethyl.
- 5. The compound according to claim 1, wherein R^{21} , R^{22} , R^{23} and R^{24} are hydrogen.
- 6. A compound according to claim 1, wherein R³ is hydrogen.

- 7. A compound according to claim 1, wherein R³ is methyl.
- 8. A compound of formula I-a

$$R^{24}$$
 R^{23}
 R^{4}
 R^{5}
 R^{5}
 R^{3}
 R^{1}
 R^{22}
 R^{21}
 R^{22}
 R^{23}
 R^{4}
 R^{5}
 R^{3}
 R^{4}
 R^{5}
 R^{3}

wherein

 R^1 is (C_1-C_3) -alkyl, halogen, halogen- (C_1-C_6) -alkyl, cyano, (C_1-C_6) -alkoxy or halogen- (C_1-C_6) -alkoxy;

R²¹, R²², R²³ and R²⁴ are each independently selected from the group consisting of hydrogen and fluoro;

 R^3 is hydrogen or (C_1-C_3) -alkyl;

 R^4 and R^5 are each independently hydrogen or (C_1-C_3) -alkyl; and

n is 1, 2 or 3;

wherein when n is 2 or 3, each R¹ is the same or different; or a pharmaceutically acceptable salt thereof.

- 9. A compound according to claim 8, wherein R³ is methyl.
- 10. A compound according to claim 9, wherein R¹ is fluoro or trifluoromethyl.
- 11. A compound according to claim 9, wherein R^1 is (C_1-C_3) -alkyl or (C_1-C_6) -alkoxy.
- 12. A compound selected from the group consisting of N-methyl-3-[4-(4-methyl-benzyloxy)-phenyl]-acrylamide and 3-[4-(3-methoxy-benzyloxy)-phenyl]-N-methyl-acrylamide.

13. A compound selected from the group consisting of 3-[4-(3-fluoro-benzyloxy)-phenyl]-2,N-dimethyl-acrylamide, 3-[4-(3-fluoro-benzyloxy)-phenyl]-N-methyl-acrylamide, N-methyl-3-[4-(4-trifluoromethyl-benzyloxy)-phenyl]-acrylamide, 3-[4-(3,4-difluoro-benzyloxy)-phenyl]-N-methyl-acrylamide, and 3-[4-(4-fluoro-benzyloxy)-phenyl]-N-methyl-acrylamide.

14. A compound of formula I-b

wherein

 R^1 is (C_1-C_3) -alkyl, halogen, halogen- (C_1-C_6) -alkyl, cyano, (C_1-C_6) -alkoxy or halogen- (C_1-C_6) -alkoxy;

 R^{21} , R^{22} , R^{23} and R^{24} are each independently selected from the group consisting of hydrogen and fluoro;

 R^3 is hydrogen or (C_1-C_3) -alkyl;

 R^4 is hydrogen or (C_1-C_3) -alkyl;

 R^5 , R^6 and R^7 are each independently hydrogen or $(C_1$ - $C_6)$ -alkyl; and

n is 1, 2 or 3;

wherein when n is 2 or 3, each R^1 is the same or different; or a pharmaceutically acceptable salt thereof.

15. A compound selected from the group consisting of

3-[4-(3-fluoro-benzyloxy)-phenyl]-2,N-dimethyl-propionamide,

3-[4-(3,4-difluoro-benzyloxy)-phenyl]-propionamide, and

3-[4-(3-fluoro-benzyloxy)-phenyl]-N-methyl-butyramide.

16. A compound of formula I-c

$$R^{24} \longrightarrow C \equiv C \longrightarrow N \longrightarrow R^3$$

$$(I-c)$$

wherein

 R^1 is (C_1-C_3) -alkyl, halogen, halogen- (C_1-C_6) -alkyl, cyano, (C_1-C_6) -alkoxy or halogen- (C_1-C_6) -alkoxy;

 R^{21} , R^{22} , R^{23} and R^{24} are each independently selected from the group consisting of hydrogen and fluoro;

 R^3 is hydrogen or (C_1-C_3) -alkyl; and

n is 1, 2 or 3;

wherein when n is 2 or 3, each R¹ is the same or different; or a pharmaceutically acceptable salt thereof.

- 17. The compound 3-[4-(3-fluoro-benzyloxy)-phenyl]-propynoic acid methylamide.
- 18. A composition comprising a compound of formula I

wherein

 R^1 is (C_1-C_3) -alkyl, halogen, halogen- (C_1-C_6) -alkyl, cyano, (C_1-C_6) -alkoxy or halogen- (C_1-C_6) -alkoxy;

 R^{21} , R^{22} , R^{23} and R^{24} are each independently selected from the group consisting of hydrogen and fluoro;

 R^3 is hydrogen or (C_1-C_3) -alkyl;

A is selected from

 R^4 is hydrogen or (C_1-C_3) -alkyl;

 R^5 , R^6 and R^7 are each independently hydrogen or (C_1-C_6) -alkyl; and

n is 1, 2 or 3; wherein when n is 2 or 3, each R¹ is the same or different; or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable carrier.

19. A composition according to claim 18, wherein the compound of formula I is a compound of formula I-a

$$R^{24} \xrightarrow{R^{23}} R^{4} \xrightarrow{R^{5}} H$$

$$C = C \xrightarrow{N} R^{3}$$

$$(I-a)$$

wherein

 R^1 is (C_1-C_3) -alkyl, halogen, halogen- (C_1-C_6) -alkyl, cyano, (C_1-C_6) -alkoxy or halogen- (C_1-C_6) -alkoxy;

 R^{21} , R^{22} , R^{23} and R^{24} are each independently selected from the group consisting of hydrogen and fluoro;

 R^3 is hydrogen or (C_1-C_3) -alkyl;

R⁴ and R⁵ are each independently hydrogen or (C₁-C₃)-alkyl; and

n is 1, 2 or 3;

wherein when n is 2 or 3, each R¹ is the same or different; or a pharmaceutically acceptable salt thereof.

20. A composition according to claim 18, wherein the compound of formula I is a compound of formula I-b

$$(R^{1})_{n} = \begin{pmatrix} R^{23} & R^{6} & R^{7} & H \\ C & C & N \\ R^{4} & R^{5} & O \end{pmatrix}$$

$$(I-b)$$

wherein

 R^1 is (C_1-C_3) -alkyl, halogen, halogen- (C_1-C_6) -alkyl, cyano, (C_1-C_6) -alkoxy or halogen- (C_1-C_6) -alkoxy;

 R^{21} , R^{22} , R^{23} and R^{24} are each independently selected from the group consisting of hydrogen and fluoro;

 R^3 is hydrogen or (C_1-C_3) -alkyl;

 R^4 is hydrogen or (C_1-C_3) -alkyl;

R⁵, R⁶ and R⁷ are each independently hydrogen or (C₁-C₆)-alkyl; and

n is 1, 2 or 3;

wherein when n is 2 or 3, each R¹ is the same or different; or a pharmaceutically acceptable salt thereof.

21. A composition according to claim 18, wherein the compound of formula I is a compound of formula I-c

$$R^{24} \longrightarrow C \equiv C \longrightarrow N \longrightarrow R^3$$

$$(I-c)$$

wherein

 R^1 is (C_1-C_3) -alkyl, halogen, halogen- (C_1-C_6) -alkyl, cyano, (C_1-C_6) -alkoxy or halogen- (C_1-C_6) -alkoxy;

 R^{21} , R^{22} , R^{23} and R^{24} are each independently selected from the group consisting of hydrogen and fluoro;

 R^3 is hydrogen or (C_1-C_3) -alkyl; and

n is 1, 2 or 3;

wherein when n is 2 or 3, each R¹ is the same or different; or a pharmaceutically acceptable salt thereof.

- 22. A process for the manufacture of a compound of formula I according to claim 1, which process comprises
- a) reacting a compound of formula II

$$(R^1)_n$$
 (II)

wherein R¹ and n are as defined in claim 1 and Y is a leaving group, with a compound of formula III

wherein R^3 , R^{21} , R^{22} , R^{23} , R^{24} and A are as defined in claim 1.

23. A process for the manufacture of a compound of formula I according to claim 1, which process comprises

reacting a compound of formula IV

$$(R^{1})_{n} \xrightarrow{R^{24}} A \longrightarrow OR^{8}$$

$$(IV)$$

wherein R^1 , R^{21} , R^{22} , R^{23} , R^{24} and n are as defined in claim 1 and R^8 is hydrogen or (C_1-C_6) -alkyl,

with an amine of formula V

$$H_2NR^3(V)$$

wherein R³ is as defined in claim 1.

- 24. A method of treating or preventing Alzheimer's disease, comprising administering to an individual a therapeutically effective amount of a compound of claim 1.
- 25. A method of treating or preventing senile dementia, comprising administering to an individual a therapeutically effective amount of a compound of claim 1.